
This slide set assumes immunisation providers are familiar with information published in the original 10th Edition *Handbook* and subsequent online updates prior to the 2015 update, as well as being generally familiar with vaccines and immunisation practice in Australia.
This presentation is divided into the sections shown on this slide. Major changes in the 2015 update of the 10th edition are highlighted in each section.

Immunisation providers should consult each section of the *Handbook* for details of all changes to specific recommendations, as well as other resources available to support the 2015 update, which will be outlined in coming slides.

*Note: We have also provided a detailed set of ‘speaker’s notes’ to accompany the slide set. As the 2015 update is only published online, references to page numbers corresponding to the printed/hardcopy of the Handbook have not been provided. Should you wish to jump directly to any specific section in these slides, hyperlinks to each section of the presentation are available in the PDF version without ‘speaker’s notes’ (i.e. slides only version). External hyperlinks are provided to relevant additional resources throughout the presentation.*

*Note: Immunisation providers should also consult their state or territory health department for information relevant to their jurisdiction, and the ‘Immunise Australia’ website of the Australian Government for other materials relevant to the National Immunisation Program (NIP).*
Introduction – the Handbook

• The Australian Immunisation Handbook is a clinical practice guideline for health professionals regarding the safe and effective use of vaccines in Australia.

• It contains information and clinical advice on the use of all vaccines available in Australia.

• It is published by the Australian Government Department of Health
  – Prepared by ATAGI (supported by NCIRS)
  – Endorsed by the NHMRC

• The Handbook is intended as a resource for healthcare professionals, providing clinical practice guidelines on the most safe and effective use of vaccines in Australia.

• The Handbook covers all vaccines registered for use in Australia at the time of development. This includes vaccines funded through differing mechanisms, such as:
  • the National Immunisation Program (NIP), and
  • other mechanisms such as the Pharmaceutical Benefits Scheme, state and territory funded programs and private script.

• NCIRS is commissioned by the Australian Government Department of Health to assist the Australian Technical Advisory Group on Immunisation (ATAGI) to develop the Handbook.

[Note: The development process for each new Handbook edition includes:
  • Literature searches on focused clinical questions
  • Critical analysis of available evidence
  • Writing by NCIRS technical writers and ATAGI members
  • An iterative process of expert review (of individual chapters, sections and the whole Handbook)
  • Public consultation
  • Further revisions and consultation
  • NHMRC review and endorsement

A similar process is followed for annual updates between new editions but over a shorter and modified schedule.]
The 10th Edition Handbook was published in March 2013. This replaced the 9th edition published in 2008, and took 3 years of development.

Two NIP schedule cards were published with the 10th Edition Handbook:
- The first card was applicable through until 30 June 2013.
- The second card came into effect from 1 July 2013 in light of the introduction of MMRV combination vaccine to the NIP schedule.

Another NIP schedule card will be available in October 2015 containing more recent updates to the schedule, some of which are noted in this slide set as they align with updates to advice in the 2015 update of the 10th Edition Handbook.

[Note: Each state and territory may also produce a schedule, which specifies the vaccines used in the NIP within their respective jurisdictions.]
Updates to 10th Edition *Handbook*

- Updates published annually (unless additional updates required for specific reason)

- 4 updates published to date:
  
  8 May 2013 (single error rectified)
  17 January 2014
    - 2014 update – *no changes* to recommendations
  27 March 2015 (pertussis chapter only)
  22 June 2015
    - 2015 update – *changes* to recommendations

- After publication of the 10th Edition *Handbook* in March 2013, it was decided that updates to the *Handbook* will be published on an annual basis given the immunisation field changes rapidly and more up-to-date advice on the use of vaccines may be required between *Handbook* editions.

- There have been four updates to the 10th Edition *Handbook* published:
  
  - Two annual updates: the 2014 annual update published in January 2014 which had no changes to clinical recommendations; and the 2015 annual update, approved in June 2015 (available online in July 2015) which included changes to a number of chapters (including clinical recommendations) which are outlined in this slide set.

  - Two further updates in response to a specific need: in May 2013 to correct an error; and March 2015 in response to fast-tracked updated advice on the use of pertussis vaccines which will also be outlined in this slide set.
The most recent update – 2015

• This slide set outlines updates made in the 10th Edition *Handbook* published in 2015. These include:
  – The 2015 annual update – updates to 24 chapters
    • minor factual changes or clarifications *not* described in this slide set
  – Separate update of Chapter 4.12 Pertussis

**Updates to the 10th Edition Handbook published in 2015 are published online only**
www.immunise.health.gov.au

• This slide set outlines the changes made in the 2015 update of the *Handbook* to assist those working in the immunisation field to keep track of the most up-to-date advice on the use of vaccines in Australia. This is especially important as changes have been made to 24 individual *Handbook* chapters.

• To make sure the information in this slide set is clear and more useful, these slides are restricted to changes in the 2015 update that impact clinical practice. Minor changes such as clarifications have been made to 11 chapters, but these have not been noted specifically in this slide set.

• All *Handbook* updates are published online only and can be found on the Immunise Australia website (www.immunise.health.gov.au). This means that the online version of the 10th Edition *Handbook* is always the most up-to-date, and replaces content in the original 10th edition published in hardcopy format in 2013. The next few slides will outline where to go for more details on *Handbook* updates.
Where to go for more details

Immunise Australia website:
www.immunise.health.gov.au

- The easiest way to find the online version of the 10th Edition *Handbook* which incorporates the annual updates is via the Immunise Australia website (www.immunise.health.gov.au). On the front page is an image of the *Handbook* (see red arrow in this slide). If you click on this graphic you will be redirected to a website specifically for the *Handbook*. 
On the Handbook website each of the chapters are provided in HTML format for easy reference. A downloadable PDF version of the 2015 update of the Handbook is also available from October 2015.
• On the Handbook website you can also find a summary of the key updates made to the 10th Edition Handbook by date they were published. The 2015 updates to the Handbook are listed under two dates:

  • 22 June 2015, which is the date the 2015 annual update was approved by the NHMRC (however, the updates were made available on the Immunise Australia website in July 2015)
  • 27 March 2015, which is the date the updates to the pertussis chapter (Chapter 4.12) were made available on the Immunise Australia website.

• This is a useful place to start when looking for information on which updates have been made and to what chapters of the Handbook.
Now you know how information in the *Handbook* is updated and where to find the most recent 2015 update of the *Handbook*, the rest of the slides in this presentation will be dedicated to taking you through the updates in more detail, by chapter.
• Part 2 of the Handbook is divided into three chapters which describe the processes and procedures around a vaccination encounter. Updates to information in each of these chapters have been made in the 2015 update of the 10th Edition Handbook as outlined in the following slides.
2.1 Pre-vaccination

- Pre-vaccination checklist (Tables 2.1.1 and 2.1.2) now includes ‘infants born to mothers receiving immunosuppressive therapy during pregnancy’

(Note: further information also in Chapter 3.3 Groups with special vaccination requirements)

- The first chapter in Part 2 covers pre-vaccination requirements.

- ‘Infants born to mothers receiving immunosuppressive therapy during pregnancy’ has been added to pre-vaccination checklists (Table 2.1.1: Pre-vaccination screening checklist and Table 2.1.2: Responses to relevant conditions or circumstances identified through the pre-vaccination screening checklist) as certain immunosuppressive medications given for management of a medical condition in a woman during pregnancy may cross the placenta and impact the infant’s immune response to some vaccines. More information is provided in Chapter 3.3 Groups with special vaccination requirements, ‘Use of immunosuppressive therapy during pregnancy’.
A number of updates have been made to advice in the Catch-up section of Chapter 2.1 to include new information as well as align with updates made in specific disease chapters.

Two general updates include:
- A link to a more user-friendly resource on international immunisation schedules
- A new general principle for delivering catch-up vaccinations relating to circumstances when two vaccines that contain the same vaccine antigen may be required on the same day (e.g. catch-up scenarios involving the Hib-MenCCV combination vaccine).

The details of catch-up recommendations relating to disease chapters are outlined in the following slides.
Hepatitis B
- Clarification of minimum intervals and upper age limits in tables and supporting text (including relevant ACIR requirements)

Pertussis
- Updated advice in line with new recommendation for booster dose at 18 months of age (see also slide 25)
  - 5 doses of DTPa-containing vaccine now recommended for children <10 years of age
  - If 18-month booster dose (dose 4) is given after the child is 3.5 years of age, the 2nd booster dose at 4 years (dose 5) is not required
  - Children ≥18 months to ≤3.5 years of age who missed booster dose at 18 months should receive one now

• An effort has been made to ensure the advice around the minimum intervals between hepatitis B vaccines as part of the primary schedule and also the upper age limits for the final dose of the primary hepatitis B vaccine course (with or without a birth dose) is consistent between Handbook chapters. Details on rules utilised by the Australian Childhood Immunisation Register when assessing acceptability of vaccine schedules has also been included.

[Note: In some instances the minimum intervals and age limits recommended in the Handbook and utilised by ACIR can be different to accommodate unique scheduling circumstances, such as overseas schedules. However, Handbook recommendations are optimal for the Australian setting and should be adhered to in most circumstances.]

• Catch-up recommendations for pertussis vaccine in children <10 years of age have been updated in line with the re-introduction of the 18-month booster dose, resulting in 5 doses of DTPa-containing vaccines recommended for children <10 years of age. The 18-month dose will be included on the NIP schedule from October 2015. Children 18 months to ≤3.5 years of age who missed this new recommendation for a booster dose at 18 months should receive a dose now to increase their immunity to pertussis through until the second booster dose recommended at 4 years of age. (Currently catch-up for the 18-month dose is not NIP funded but can be accessed via private prescription.)

[Note: More details on the changes to pertussis vaccine recommendations are outlined in slides 25–27.]
Catch-up ... cont.

Meningococcal (see also slide 38)
- New advice for meningococcal B vaccine (MenBV; Bexsero)
- New advice on minimum age and intervals for meningococcal C conjugate vaccines (including relevant ACIR requirements)
- Clarification on the use of Hib-MenCCV combination vaccine in catch-up circumstances

Zoster
- Revised recommendations for zoster vaccine (see also slide 44)

• Catch-up recommendations for meningococcal vaccines in both children and adults have been updated to align with new recommendations on the use of meningococcal vaccine in the disease chapter (outlined in more detail in slide 38). This includes:
  • advice on the use of the meningococcal B vaccine, Bexsero
  • updates to the minimum age and minimum intervals for the various meningococcal vaccine formulations making specific note where this is different to ages considered acceptable by the Australian Childhood Immunisation Register
  • clarification on the use of Hib-MenCCV combination vaccine in catch-up circumstances [Note: More detailed advice on this can be found in the ATAGI statement on ‘Clinical advice for immunisation providers regarding the use of Menitorix® in delivering catch-up vaccinations, July 2013’ available on the Immunise Australia website: www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/ATAGI-advice-menitorix ]

• Catch-up recommendation for zoster vaccine in adults was updated to align with updated age-based recommendations on the use of zoster vaccine in the disease chapter (outlined in more detail in slide 44).
2.2 Administration of vaccines

- Amendments to advice relating to the administration of vaccines, including:
  - Advice that it is necessary to shake vials, pre-filled syringes or reconstituted vaccines prior to administration
  - Clarification on the need to re-administer a vaccine if given by an alternative route
  - Clarification that prophylactic administration of paracetamol is only required for MenBV (Bexsero)
    (see also slide 38)

- Updates have been made to the second chapter of Part 2, *Administration of vaccines*, to provide clarification on advice. These include:
  - Addition of a statement that it is necessary to shake vaccine (either vial/pre-filled syringe or reconstituted vaccine) to ensure a homogeneous suspension is obtained, as well as check for particulate matter or colour change in the formulation, before it is administered
  - Clarification on the preferred route of administration for influenza and MMRV vaccines and recommended action if given by the alternative route
  - Clarification that the administration of paracetamol at the time of, or immediately after, vaccination is not routinely recommended; however, there is an exception to this when administering meningococcal B vaccine in infants <2 years of age (described in more detail in slide 38)
• Updates have been made to the third chapter of Part 2, *Post-vaccination*, to provide clarification on advice. These include:

  • further clarification that the administration of paracetamol at the time of, or immediately after, vaccination is not routinely recommended; however, there is an exception to this when administering meningococcal B vaccine in infants <2 years of age (described in more detail in slide 38)

  • information on complex regional pain syndrome as a possible rare event after vaccination, although this has been postulated to be a non-specific reaction to the minor trauma and not specific to the vaccine(s) used
• In Part 3 of the Handbook, there are three chapters, each dedicated to vaccinations for different special risk groups.
3.1 Vaccination for Aboriginal and Torres Strait Islander people

- **New recommendation** for use of influenza vaccine
  - Annual influenza vaccine is recommended for all Aboriginal and Torres Strait Islander children
    
    - particularly children 6 months to <5 years and ≥15 years of age who are at greater risk of influenza and its complications than non-Indigenous children of the same age

(See also slide 32)

- The first chapter of Part 3, *Vaccination of Aboriginal and Torres Strait Islander people*, has been updated in line with the new recommendation for influenza vaccination of all Aboriginal and Torres Strait Islander children made in the disease chapter (outlined in slide 32).

- While the influenza burden is not as great in Aboriginal and Torres Strait Islander children 6 to 14 years of age compared to other ages, vaccination of this age group will still provide these children with individual benefit against influenza as well as offer indirect protection to those who live in close proximity to them who may be in the age groups of greatest risk.
3.2 Vaccination for international travel

- Amendments made to reflect new advice relating to a number of disease chapters:
  - **Japanese encephalitis** *(see also slide 35)*
    - new information on disease risk for travellers added throughout chapter
    - updated information on ages of use, dosing schedules and booster requirements

- The second chapter of Part 3, *Vaccination for international travel*, has had a number of updates including:

  - new information included on possible temporary introduction of vaccine requirements under international health regulations, for example, as recently put in place for polio vaccine for entry and exit to certain countries

  - advice on Japanese encephalitis vaccines has been updated to align with new recommendations on their use in the disease chapter (outlined in more detail in slide 35), including:
    - further clarification of the risk of Japanese encephalitis for travellers
    - updates to age of use, dosing schedules and booster vaccinations for each of the two registered vaccines
Vaccination for international travel … cont.

• **Meningococcal** (see also slide 39)
  - Advice on the use of the meningococcal B vaccine (MenVB; Bexsero)
  - Updated information on ages of use, dosing schedules and booster requirements for quadrivalent meningococcal vaccines

• **Influenza**
  - Information on intradermal vaccine formulations removed as no longer available in Australia

• Advice on the use of meningococcal vaccines has been updated to align with new recommendations in the disease chapter (outlined in more detail in slide 39), including:
  
  • advice on the use of the meningococcal B vaccine, Bexsero
  
  • updated information on age of use, dosing schedules and booster requirements for quadrivalent meningococcal vaccines

• Information around the use of intradermal influenza vaccine formulations was removed as they are no longer available in Australia.
• The third chapter of Part 3, *Groups with special vaccination requirements*, has had a number of updates including:

  • updates to align with the new recommendation in the pertussis chapter for a single dose of dTpa vaccine for women in the third trimester of every pregnancy to prevent pertussis in newborn infants (outlined in slide 26)

  • inclusion of advice on the use of meningococcal B vaccine during pregnancy

  • information on vaccination of mothers receiving immunosuppressive therapy during pregnancy has been added
Updates have been made to section 3.3.3 Vaccination of immunocompromised persons to align with updated advice in the disease chapters. These include:

- clarification that 2 doses of influenza vaccine the first time vaccinated is only recommended for individuals with certain immunocompromising conditions (outlined in slide 34)
- new reference to interval between administration of blood products and the live attenuated Japanese encephalitis vaccine (outlined in slide 36)
- updates on use of meningococcal vaccines in line with disease chapter, such as age of use, schedule and need for booster doses, as well as the addition of advice on the use of meningococcal B vaccine, Bexsero (outlined in slide 38)

Section 3.3.7 Vaccination of persons at occupational risk also updated to include advice on the use of the meningococcal B vaccine, Bexsero.
Part 4 of the Handbook contains 24 disease chapters, each dealing with an individual disease for which a vaccine, or vaccines, are currently available in Australia. As mentioned at the beginning of this presentation, in this slide set we have only included information for updates made to disease chapters where there are updates that impact clinical practice.

The format of these chapters has not changed in the 2015 update of the 10th Edition Handbook and is the same as in the original 10th Edition Handbook published in hardcopy format in 2013.
• New and updated recommendations within the respective chapters on diphtheria- tetanus- and pertussis-containing vaccines are discussed in the following two slides.

• All three chapters have been updated to include the new ATAGI recommendation for a booster dose of DTPa at 18 months of age to minimise the likelihood of infection before the second booster dose recommended at 4 years of age.

  • The 18-month booster is funded on the NIP from October 2015.

• Catch-up advice in children <10 years of age has been updated in line with this new recommendation as discussed earlier in slide 14.
Diphtheria, Tetanus and Pertussis ... cont.

• New recommendation for the use of dTpa vaccine formulation during pregnancy:
  – Single dose in the third trimester of EVERY pregnancy
    (optimally between 28 and 32 weeks)

  What’s the evidence?
  • Greatest burden of severe illness and deaths due to pertussis is in too young to receive pertussis vaccine
  • Pertussis vaccine at least 7 days before delivery shown to reduce pertussis in infants less than 3 months of age by 90%
  • Mechanism via the transfer of maternal antibodies in utero
  • No increased risk of adverse pregnancy outcomes reported in countries routinely vaccinating pregnant women against pertussis

  Funded by all state and territory health departments as of June 2015

• All three chapters have been updated to include the new ATAGI recommendation on pertussis vaccination during pregnancy. This updated advice was published on the Immunise Australia website in March 2015.

• Pregnant women are recommended to receive a single dose of dTpa in the third trimester of every pregnancy. This replaces previous recommendations for a dose post-partum, also called cocooning. This is because evidence is now available which shows that pertussis vaccination during pregnancy is safe for the mother and her baby and is the most effective at preventing pertussis in newborns. While this dose can be given at any stage during the third trimester, the optimal time of receipt is between 28 and 32 weeks gestation so that maximum antibody transfer occurs.

[Note: Pertussis vaccination during pregnancy is not funded on the NIP but all states and territories in Australia have introduced their own funded programs.]
If an e new mother did not receive a dose of dTpa in the third trimester of pregnancy, she should be vaccinated as soon as possible after birth to reduce the likelihood of transmitting pertussis to the newborn. For any future pregnancies a dose of dTpa should be administered in the third trimester, even if the pregnancies are closely spaced, to ensure the maximum amount of pertussis antibodies are transferred to the infant.

A dose of the adolescent/adult dTpa formulation is recommended for all adult household contacts and carers of infants <6 months of age if more than 10 years has passed since the last dose was received.

[Note: This is to reduce transmission of pertussis to the infant before they commence their primary vaccine course at 6 weeks of age.]
**Haemophilus influenzae type b (Hib)**

- Information on use of the Hib-MenCCV combination vaccine added
  - Used on the NIP for 12-month dose since July 2013
  - General catch-up advice also updated (see also slide 15)

**Hepatitis A**

- Clarification of lifestyle related behaviours that increase the risk of acquiring hepatitis A

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- The *Haemophilus influenzae* type b disease chapter has been updated to include information on the combination Hib and meningococcal C conjugate vaccine (Hib-MenCCV) which has been used to deliver the Hib and meningococcal C vaccinations scheduled on the NIP at 12 months of age since July 2013.

- The hepatitis A disease chapter has been updated to provide clarification on which lifestyle factors increase an individual’s risk of acquiring hepatitis A.
The hepatitis B disease chapter has had a number of updates to improve clarity of the advice provided on the use of hepatitis B vaccines, including:

- that the third dose of hepatitis B vaccine in the primary course should be given at or after 24 weeks of age (however, from 1 October 2015 the Australian Childhood Immunisation Register will accept a third dose as valid if given at or above 16 weeks of age)

- the minimum interval between the 1st and 2nd primary doses of hepatitis B vaccine is 1 month; between the 2nd and 3rd primary doses is 2 months; and between the 1st and 3rd doses is 4 months. These minimum intervals are applicable for all age groups. [Note: The ACIR accepts a minimum interval of 4 weeks between any hepatitis B vaccine dose to allow children who have been immunised using 3-dose schedules (typically provided overseas) to be considered as fully immunised.]
• Clarification on the clinical course of action for sexual contacts of persons with hepatitis B
  – Susceptible sexual partners of HBsAg-positive persons should be offered post-exposure HBIG and hepatitis B vaccination within 14 days of the last sexual contact.

• The hepatitis B disease chapter was also updated to clarify that the appropriate clinical course of action for sexual contacts of a person with hepatitis B includes immunoglobulin and vaccination within 14 days of the last sexual contact.
The HPV disease chapter has been updated to include information on next generation HPV vaccination strategies under development, such as a vaccine formulation that protects against nine HPV types and assessment of different vaccination schedules. For example, some early data has shown that fewer than 3 doses may be effective at preventing HPV infection. However, the current recommendation is still for a 3-dose primary HPV vaccine course. Any changes to this recommendation will require careful review and assessment of evidence available on the use of different vaccine schedules.
The influenza disease chapter has had two updates to recommendations on the use of seasonal influenza vaccines. These include:

- annual influenza vaccination is now recommended for all Aboriginal and Torres Strait Islander children
  
  - The greatest burden is in children aged <5 years and 15 years and over; however, there is still benefit of vaccination for children 5–14 years of age to protect them as well as other members of their household through herd immunity.

- annual influenza vaccination is recommended for individuals who have a BMI of ≥40 kg/m², which is a change from the previous recommendation of ≥30 kg/m², and for individuals with chronic liver disease (including alcoholism), which is a change from the previous recommendation of alcoholism only. This is based on evidence demonstrating that individuals with these underlying conditions are at greater risk of severe influenza outcomes than otherwise healthy individuals of the same age.
Changes have been made to other content in the influenza disease chapter, including:

- the inclusion of details for two inactivated quadrivalent influenza vaccine formulations registered by the Therapeutic Goods Administration. The quadrivalent influenza vaccines have the same three influenza strains as the trivalent influenza vaccines but they also contain an additional influenza B virus strain (the trivalent influenza vaccines only contain one).

- the inclusion of a new statement about influenza vaccination of preterm infants which reiterates advice already provided in *Chapter 3.3 Groups with special vaccination requirements*

- the removal of information on Intanza intradermal influenza vaccine formulations as they will no longer be available in the Australian market

- New information included on:
  - inactivated quadrivalent influenza vaccine formulations
    - 2 registered formulations available privately (not NIP funded)
  - influenza vaccine recommendation for preterm infants

- Information removed on:
  - Intanza intradermal vaccine formulations which will no longer be available in the Australian market
• In addition to the updated recommendations and new information, other general clarifications have been made throughout the influenza disease chapter. Those to note are:

• The terminology for the bioCSL brand of trivalent influenza vaccine has been changed throughout the influenza chapter to make clear that it is a single vaccine brand. This has also been changed throughout other chapters of the Handbook for consistency.

• The upper age limit for when children require 2 doses of inactivated influenza vaccine if receiving for the first time is now <9 years, which is now consistent throughout the Handbook.

• How much increased risk of fever and febrile convulsions there is when trivalent influenza vaccine and 13-valent pneumococcal conjugate vaccine are co-administered in children is noted by age.

• Only individuals who have undergone haematopoietic stem cell or solid organ transplant are recommended to receive 2 doses of influenza vaccine when they are vaccinated for the first time, irrespective of age.
Japanese encephalitis (JE)

- Updated recommendations on the use of JE vaccines including:
  - co-administration with other vaccines
  - age of use and need for booster dose for Japanese encephalitis vaccines

<table>
<thead>
<tr>
<th>Age of vaccine recipient</th>
<th>Vaccine</th>
<th>Number of doses</th>
<th>Booster</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤2 to &lt;9 months</td>
<td>JEspect</td>
<td>2 doses* (28 days apart)</td>
<td>Not required</td>
</tr>
<tr>
<td>&gt;9 months to ≤18 years</td>
<td>Injev</td>
<td>1 dose</td>
<td>1–2 years after primary dose</td>
</tr>
<tr>
<td></td>
<td>Refer to Note 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥18 years</td>
<td>JEspect</td>
<td>2 doses* (28 days apart)</td>
<td>Not required</td>
</tr>
<tr>
<td></td>
<td>Injev</td>
<td>1 dose</td>
<td>Refer to Note 2</td>
</tr>
</tbody>
</table>

* Each dose of JEspect contains 15 mcg of purified JE virus.
• Changes have been made to other content in the Japanese encephalitis disease chapter, including:
  • information on accelerated schedules for the Japanese encephalitis vaccine, JEspect
  • a new section on the interchangeability of the two Japanese encephalitis vaccines
  • a new section on vaccination after immunoglobulin or blood product administration

• In addition to the updated recommendations and new information, other general clarifications have been made in the Japanese encephalitis disease chapter. Those to note are:
  • clarification of the risk of Japanese encephalitis to travellers and reference to the CDC Yellow Book for international epidemiology of Japanese encephalitis
  • clarification of the factors that should be considered for decisions on vaccination of residents and non-residents in the Torres Strait Islands against Japanese encephalitis, such as person’s age, the time of year and recent epidemiology
The measles disease chapter has been updated to include the most up-to-date information on measles elimination in Australia and internationally. In 2014, four new countries were certified as free from the transmission of wild-type measles by the World Health Organization, including Australia.

The advice on post-exposure prophylaxis for persons exposed to measles outlined in Table 4.9.2 has been clarified.
The entire chapter has been updated

Major updates noted in the following slides:

- Information on two recently registered vaccines
  - Meningococcal B (MenBV; Bexsero)
  - Quadrivalent conjugate vaccine, 4vMenCV (Nimenrix)
- New recommendations on the use MenBV:
  - new table outlining recommended number of doses of MenBV by age group (Table 4.10.1)
  - prophylactic administration of paracetamol recommended with every dose in children <2 years of age (an exception to general Handbook recommendation)

• The entire meningococcal disease chapter has been reviewed and rewritten in the 2015 update of the 10th Edition Handbook. For this reason it should be considered a new Handbook chapter and read in its entirety. Some of the major updates to note include:

  • Information and advice for two newly registered meningococcal vaccines have been added: the meningococcal B vaccine, Bexero; and the quadrivalent conjugate meningococcal vaccine, Nimenrix.

  • A new table, Table 4.10.1, has been included outlining meningococcal B dose recommendations by age group.

  • When the meningococcal B vaccine is given to children <2 years of age, the prophylactic administration of paracetamol is recommended to reduce the likelihood of fever following vaccination. This is an exception to the routine Handbook recommendation around the administration of paracetamol prior to vaccine administration as outlined in Part 2 of the Handbook.
• Other updates to the recommendations in the meningococcal disease chapter include:

• changes to age of use, dose intervals and booster dose recommendations for meningococcal vaccines in persons with certain medical conditions associated with increased risk of invasive meningococcal disease and travellers. The recommendations are summarised in two new tables, one for persons with underlying conditions (Table 4.10.2) and one for travellers (Table 4.10.3).

• quadrivalent meningococcal vaccines are preferred over polysaccharide meningococcal vaccines, unless in circumstances where the need for repeat doses due to ongoing risk is not anticipated such as travel

• Update to recommendations on:
  – vaccination of persons with conditions associated with increased risk of IMD
    • including age of use and booster doses (new table 4.10.2)
  – vaccination of travellers
    • including age of use and booster doses (new table 4.10.3)
  – preference of conjugate over polysaccharide quadrivalent vaccines described in more detail
Meningococcal disease … cont.

- Clarification on risk of IMD among specific groups, including:
  - men who have sex with men
  - college students
  - new military recruits
  - people with HIV
- Clarification of advice provided on public health use of vaccines

- Other general clarifications made in the meningococcal disease chapter to note include:
  - clarification of the risk of invasive meningococcal disease in specific populations such as men who have sex with men, people with HIV and those living in close quarters
  - advice on public health management of meningococcal disease and use of vaccines updated for consistency with new meningococcal Series of National Guidelines
• Updated recommendation:
  – 23vPPV and Zostavax can be concurrently administered using separate syringes and injection sites

• Updates to reflect that from May 2014, 13vPCV has been registered for use in all ages (previously children <18 years)

• The pneumococcal disease chapter has an updated recommendation on the co-administration of the 23-valent pneumococcal polysaccharide vaccine and the zoster vaccine, which can be given concurrently using separate syringes and injection sites.

• The registered age for use of the 13-valent pneumococcal conjugate vaccine has been extended to include any person from 6 weeks of age in sections throughout the chapter including vaccines, dosage and administration, recommendations, adverse events and variations from product information.
Poliomyelitis

• New information on temporary WHO International Health Regulations relating to documentation of polio vaccination requirements

Yellow fever

• Comment on changes to booster dose requirements under International Health Regulations to clarify a booster every 10 years still required in Australia

• Information relating to vaccination requirements for international travel under WHO International Health Regulations has been added to the poliomyelitis and yellow fever disease chapters.

  • Temporary International Health Regulations can be put in place for polio when there is a public health need.
  [Note: More information on such requirements can be found on the Australian Government Department of Health website: www.health.gov.au/internet/main/publishing.nsf/Content/ohp-poliomyelitis.htm]

  • The changes to the requirements for a booster dose of yellow fever vaccine under International Health Regulations has been outlined to make clear that booster doses are still required every 10 years if the risk of exposure is ongoing, as outlined in the Handbook.
Rabies and other lyssaviruses (incl. Australian bat lyssavirus, ABLV)

- Clarification on the risk and management of a potential lyssavirus exposure from a terrestrial animal in an area where rabies is not enzootic (e.g. Australia)

- New information on where to seek advice in circumstances where there are shortages of registered rabies immunoglobulin product

- The rabies and other lyssavirus disease chapter has been updated to include new information on the risk of lyssavirus from terrestrial animals in an area where rabies is not enzootic and the appropriate management for such an exposure.

- New information has also been added to this chapter to clarify that in circumstances where there are shortages of registered rabies immunoglobulin product, advice should be sought from state and territory health authorities.
The zoster disease chapter has been updated to include a breakdown of zoster vaccine recommendations by age groups. Zoster vaccine is recommended for Australians from 60 years of age; however, the greatest benefit from zoster vaccination on a population-wide level is expected from vaccination of individuals 70 years and older based on the disease epidemiology and data on vaccine effectiveness in different age groups.

From November 2016, a single dose of zoster vaccine, Zostavax, will be funded on the NIP to previously unvaccinated adults 70 years of age. To ensure these doses can be appropriately captured, the Australian Childhood Immunisation Register will be gradually expanded over the coming years until it captures vaccines given to all age groups, resulting in a whole-of-life Australian Immunisation Register.

As mentioned previously, Zostavax and the 23-valent pneumococcal polysaccharide vaccine can be co-administered based on safety data from a large observational study carried out in the USA.
Thank you for taking the time to go through the major updates included in the 2015 update of the 10th Edition Handbook, which is part of the new annual update process for the Handbook to ensure advice on the use of vaccines is as up-to-date as possible. Just a reminder that as part of this annual update process, not all chapters have been reviewed and updated but only those where there has been a need in response to new information, an opportunity to improve clarity or due to updated or new recommendations on the use of vaccines.

The updates that have been summarised in these slides are not available in hardcopy but can be found in the electronic version of the Handbook on the Immunise Australia website.

Online updates are found at [www.immunise.health.gov.au](http://www.immunise.health.gov.au)
• This slide provides an overview of some of the useful online resources for more information about:
  • the *Handbook*
  • various organisations involved in its development
  • guidelines on the prevention and treatment of vaccine-preventable diseases

• The NCIRS website in particular contains a number of resources for immunisation providers which have been updated to reflect the most up-to-date advice in the 2015 update of the *Handbook* including disease fact sheets, vaccine history tables, schedule tables and stand-alone copies of *Handbook* tables which can be easily printed: www.ncirs.edu.au

• Other sources of immunisation resources include:
  • Australian Government Department of Health: www.immunise.health.gov.au
    • electronic version of the 10th Edition *Handbook*
    • NIP schedule cards
    • ATAGI
    • HPV School Vaccination Program: hpv.health.gov.au
  • TGA: www.tga.gov.au
  • ASCIA: www.allergy.org.au
  • National HPV Vaccination Program Register (NHVPR): www.hpvregister.org.au
  • WHO, yellow fever vaccination requirements: www.who.int/csr/disease/yellowfev/en
Health professionals are reminded to review the full version of the Handbook for detailed recommendations before implementing any practices, and to regularly check the Department of Health website for updates on these recommendations.

We would like to thank and acknowledge:

- All those involved in the development of the *Handbook*
- Staff of NCIRS who developed this slide set
- All health professionals involved in immunisation programs who utilise the *Handbook* and enable the effective and safe use of vaccines in Australia

Thank you for your attention, and we hope you find the 2015 update of the 10th edition of *The Australian Immunisation Handbook* a useful resource.